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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.												
10/088,468	06/11/2002	Toshiro Nishio	967 029	8804												
7590 Owen D Marjama Wall Marjama & Bilinski Suite 400 101 South Salina Street Syracuse, NY 13202		07/19/2007	<table border="1"><tr><td colspan="2">EXAMINER</td></tr><tr><td colspan="2">DIEP, NHON THANH</td></tr><tr><td>ART UNIT</td><td>PAPER NUMBER</td></tr><tr><td colspan="2">2621</td></tr><tr><td>MAIL DATE</td><td>DELIVERY MODE</td></tr><tr><td>07/19/2007</td><td>PAPER</td></tr></table>		EXAMINER		DIEP, NHON THANH		ART UNIT	PAPER NUMBER	2621		MAIL DATE	DELIVERY MODE	07/19/2007	PAPER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/088,468

Applicant(s)

NISHIO ET AL.

Examiner

Nhon T. Diep

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--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 26 June 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).


4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: 34,35 and 38-44.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See attached sheets.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
13. ☒ Other: See Continuation Sheet.


**NHON DIEP
PRIMARY EXAMINER**

Continuation of 13. Other: The information disclosure statement filed 4/5/2007 fails to comply with 37 CFR 1.97(d) because it lacks a statement as specified in 37 CFR 1.97(e). It has been placed in the application file, but the information referred to therein has not been considered..

Response to Arguments

1. Applicant's arguments filed 6/26/2007 have been fully considered but they are not persuasive.

With regard to the applicants' argument that: "Applicants continue to regard the claims in their form prior to the present amendment to be allowable; and, in support of such a position the applicants" remarks submitted in the Office action responses of May 27, 2005, March 21, 2006, May 22, 2006 and December 8, 2006 are all incorporated herein by reference.

Applicants respectfully assert that the Examiner has not fully considered the differences between the claimed invention and the prior art. Indeed, the Examiner freely admits that vast differences are present between the claimed Invention and the relied upon prior art. Notably, in the outstanding Final Office action of February 26, 2007, as will be explained more fully herein, the Examiner maintains an Interpretation of Maruoka, which even accepted as true, would not result in all of the claim elements of the various claims being satisfied, even if Maruoka and Kato and the remaining references were properly combinable (which they are not).

In rejecting the claims, the examiner sets forth Kato as the primary reference but freely admits that:

Kate et al. does not particularly disclose an encoder to time-divisionally multiplex the picture signals in a video period and the control signal In a retrace period, thereby to encode the picture signals and the control signal into transmission signals... February 26, 2007 Office Action, Page 2.

A reading of Kato confirms that Kato does not teach or suggest a control signal generated based on a compressively coded signal and time divisionally multiplex the control signal with the picture signals into transmission path signals.

Applicants respectfully assert that Kato lacks a teaching or suggestion relating to a control signal encoded in a video signal as is recited in the various pending claims. Applicants respectfully note with respect to field memory group 17 disclosed in Fig. 1 of Kato and field memory group 57, that only an image signal is outputted by field memory group 17 and field memory group 57 of Kato and not control signal information. Applicants respectfully request the Examiner to fully consider the differences between the claimed invention and prior art, when assessing whether the claims are obvious over the prior art of record. See *Graham v. John Deere Co.*, 383 U. S. 1 (Sup. Ct. 1966). Further modification of Kate so that control signals are time divided in a transmission signal would change the principle of operation of Kato. If a proposed modification could render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In *re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). If the proposed modification or combination of the prior art would change the principle of operation of the prior art Invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious, in *re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959) See MPEP§ 2143.01.”

The examiner correctly admits that Kato does not teach or suggest a control signal generated based on a compressively coded signal and time divisionally multiplex the control signal with the picture signals into transmission path signals as shown in the final Office Action (paragraph 2, lines 11-14). However, with regard to a control signal, the examiner respectfully disagrees with the applicants and maintains that a control signal, which is generated based on the compressively coded signal is indeed output and stored in field memory group 57 of figure 5. Notice that field memory group 57 provides information to motion compensator 56 and that the examiner insists that the information provided is a control signal to control the motion compensation since, for example, intra coded frame would not be used for motion compensation as is in the case of inter coded frame. It is respectfully submitted that a control signal must be provided to inform motion compensation 56 what kind of frame currently being stored in the field memory so that the motion compensation can be effectively carried out and because coded signals must carry information such as picture types, slice information to help decoder to decode signals, it is respectfully submitted that the control signal is generated based on the compressively coded. It is very important to understand that Kato et al, while does not particularly discloses that a control signal generated based on a compressively coded signal and time divisionally multiplex the control signal with the picture signals into transmission path signals, Kato et al does meet limitation of a control signal is outputted as a result of decoding.

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With regard to the applicants' argument that: "A major reference relied upon by the Examiner in support of the rejections and one that is essential to the Examiner's teachings is Maruoka which allegedly has teachings relating to the claimed invention. The applicants have pointed out major deficiencies in Maruoka and in the Examiner's reliance on Maruoka.

For example in the Office action response of December 8, 2006, the applicants' state:

Because the Examiner has not provided an explanation as to why the Examiner believes the reference to "independent data" is a reference to a control signal, It is respectfully asserted that the Examiner has Indicated that the teachings of Maruoka cannot support the conclusion that the reference to "independent data" is a reference to "control signals "as recited in applicants' claims. December 8, 2006 Amendment, Page 9.

Where the applicant traverses any rejection, the Examiner should, if he or she repeats the rejection, take note of the applicant's argument and answer the substance of it. MPEP §707(f).

In the Office action response of December 8, 2006, the applicants' further state: If the Examiner will continue to maintain that the "independent data" referred to in Maruoka is a control signal, the Examiner is respectfully requested to further explain (in addition to explaining why the Examiner regards a reference to "independent data" to be a reference to a control signal) why the Examiner further believes that the independent data referred to in Maruoka is data that is "generated based on [a] compressively coded

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signal," as is required of the control signal referred to in claims 34, 35, 38, 39, and 40.

December 8, 2006 Amendment, Page 10.

Where the applicant traverses any rejection, the Examiner should, if he or she repeats the rejection, take note of the applicants' argument and answer the substance of it. MPEP §707(f).

The applicants do note that in the final Office action of February 26, 2007 the Examiner facially addresses the noted deficiencies of Maruoka noted by the applicants. In the February 26, 2007 Office action, the Examiner states as follows:

...Regarding the features of time-divisionally multiplexing the picture signals and the control signal, it is clear from Figure 1B of Maruoka that the color difference and luminance signals that are time compressed represent the "independent data" as disclosed at column 1, line 59 to column 2, line 12. And since this "independent data" and "audio data" as shown [in Figure 1B of Maruoka are time division multiplexed as a packet, inherent if not obvious control signals are involved in the audio and independent data processings in order to timely synchronize and multiplex the digital signal. (emphasis added) February 26, 2007 Office act/on, pages 9 and 10.

In response to the Examiner's current statement regarding Maruoka, applicants respectfully assert that, in addition to the statement not substantially addressing the deficiencies of Maruoka pointed out by the applicants, the Examiner has proposed an interpretation of Maruoka that, if taken as true, renders Maruoka a prior art reference that does not have elements that correspond to the elements of applicants' claims for which the reference was cited. In the February 26, 2007 Office action, the Examiner

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alleges that the control signal element of applicants' claims is satisfied by the color difference signals and luminescence signals of Maruoka. However, if the color difference and luminescence signals of Maruoka are taken to be in satisfaction of the control signal element of applicants' claims, and not the picture signals element of applicants' claims, then Maruoka does not, based on the Examiner's own reasoning, have the claim elements of applicants' claims.

Applicants' claims specifically require elements relating to the time division multiplexing of picture signals and a control signal in a retrace period. However, if the difference and luminescence signals of Maruoka are taken as a control signal, Maruoka at best teaches audio signals and control signals time divisionally multiplexed, and does not teach control signals time divisionally multiplexed with picture signals as is required by applicants' claims.

If the position of the Examiner is that the color difference and luminescence signals of Maruoka are somehow both picture signals and, at the same time control signals, the elements of applicants' claims are also not satisfied. Applicants' claims expressly recite elements relating to time division multiplexing of picture signals and a control signal, wherein the control signals are time divided in a retrace period. The Examiner is respectfully requested to confirm that the Examiner regards the color difference and luminescence signals to be, at the same time, both picture signals in satisfaction of the picture signals element of applicants' claims and a control signal in satisfaction of the control signal element of applicants' claims, which control signal is recited as being time divisionally multiplexed in a retrace period.

In order to sustain a rejection based on obviousness, the Examiner must consider each and every element of applicants' claims. The Examiner must consider the difference between the claimed invention and the prior art. *Graham v. John Deere Co.*, 383 U. S. 1 (Sup. Ct. 1966). See also, *KSR International Company v. Teleflex Inc. et al.*, 550 U. S. ~ (2007). Because the Examiner has not proposed an interpretation of Maruoka in which all of the elements of applicants' claims would be satisfied even assuming Maruoka was properly combined with the remaining references (which it is not), it is believed that the Examiner has not considered each and every element of applicants' claims. If Maruoka were combined with Kato and the remaining references per the proposed combination of the Examiner, an audio signal and a control signal would be time division multiplexed in a transmission path signal and would not include a transmission path signal including a control signal time division multiplexed with picture signals as is recited in the claims.

In view of the vast and significant differences between the claimed invention and prior art; namely, the absence of any teaching or suggestion in the prior art relating to time divisionally multiplexing a control signal generated based on a compressively coded signal in a transmission path in accordance with that various claim combinations, the applicants respectfully assert that the Examiner has not considered the differences between the claims invention and the prior art. *Graham v. John Deers Co.*, 383 U. S. 1 (Sup. Ct. 1966). See also, *KSR international Company v. Teleflex inc. et al.* 550 U. S. (2007).".

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The examiner, first of all, appreciates the fact that applicants freely and correctly admit that "audio signals and control signals are time divisionally multiplexed" (page 11, lines 1-2).

Secondly, the reference of Makuoka et al is used to show that "an independent signal", which could be any type of signal, can be time divisional multiplexed with other signals during the encoding process.

Finally, having the teaching of Maruoka et al, it would have been obvious that if one can time divisionally multiplexed "an independent signal" with an audio signal, one skilled in the art could time divisionally multiplex the control signal of Kato et al with either audio and/or visual image signals to form a transmission signal and in the case of Kato et al and in combination with Tahara et al, wherein Tahara et al teaches transcoding whereas previous generation coding information (the control signal) is re-used for further encoding process, the control signal and picture signals (information that has to be transmitted) of Kato et al needs to be saved, stored and transmitted to the next stage and would be obvious to time divisionally multiplexed them as taught by Maruoka et al.

With regard to the applicants' argument that: "In applying Kato, Tahara, and Maruoka, the Examiner further relies on an incorrect legal standard. In maintaining the rejection, the Examiner assesses the technical feasibility of the claimed combination but does not inquire as to whether skilled artisans would have seen the benefit of the claimed combinations.

It is respectfully asserted that the Examiner has applied an improper legal standard in attempting to establish that there is motivation to combine references. The technical feasibility of a combination is irrelevant to the inquiry as to whether the skilled artisan would see a benefit of a claimed invention, i.e., whether there is a motivation to combine references. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination, in re Mills, 916 F.2d 680, cited in MPEP §2143.01. Although a prior art device "may be capable of being modified to run the way the apparatus is obtained," there must be a suggestion or motivation in the reference to do so. See *id.* at 682. The Supreme Court has recently confirmed that a primary inquiry of an obviousness analysis is to determine whether a skilled artisan, given the state of the art and without use of hindsight, would have seen the benefit of making the current combination. The proper question to have asked was whether a pedal designer of ordinary skill, facing the wide range of needs created by developments in the field of endeavor, would have seen a benefit to upgrading Asano with a sensor." See *KSR International Company v. Teleflex Inc. et al*, 550 U. S. ~ (2007).

Further to the above, it is further asserted that the Examiner has not considered certain advantages of the claimed invention. With a control signal time divisionally multiplexed with picture signals in the video signal transmission path, convenient use of the invention in an intermediary device, e.g., a set top box, between a broadcasting station and a display unit, e.g., a TV monitor is allowed. The specification describes advantageous use of the invention in an intermediary device which can output

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transmission path signals to a display unit that can be connected to the claimed signal transmission apparatus.' The prior art relied upon by the Examiner does not describe and does not exhibit the advantages highlighted herein in terms of use as an intermediary device outputting transmission path signals to a display device equipped display unit, e.g., a TV monitor.

The totality of the record must be considered when determining whether a claimed invention would have been obvious to one of ordinary skill in the art at the time the invention was made. Therefore, evidence and arguments directed to advantages not disclosed in the specification cannot be disregarded. In re Chu, 66 F.3d 292, 298- 99, 36 USPQ2d 1089, 1094-95 (Fed. Cir. 1995) cited in MPEP§716.02(t).".

The examiner respectfully disagrees. Since "a control signal is convenient used of the invention in an intermediary device, e.g., a set top box, between a broadcasting station and a display unit, e.g., a TV monitor " as argued above, is not part of the claim limitations, the examiner respectfully submitted that it is proper to combine references as presented in the final office action and as argued in the above paragraphs.

With regard to the applicants' argument that: "Further regarding applicants' claims, some, but not all of applicants' claims recite elements relating to a control signal having information relating to picture quality of a base band signal. For example, claim 39 recites: "and a control signal, the transmission path signal is generated by coding the control signal to be used for controlling image

quality..."and claim 43 recites: "said control signal including information for use in controlling image quality of the picture signals..."

The examiner, again, respectfully disagrees and as indicated in paragraph 4, lines 19-22, Tahara et al teaches the conventional use of control signal to control the qualities of the picture signals. (col. 20, lines 4-16).

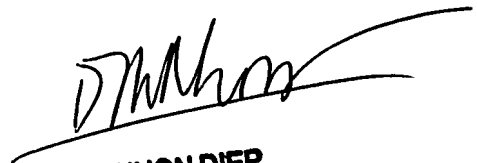
2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhon T. Diep whose telephone number is 571-272-7328. The examiner can normally be reached on m-f.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ND
7/14/2007



NHON DIEP
PRIMARY EXAMINER